

Oligonucleotide Inhibitors of bcl-xL

Abstract of the Invention

5 This invention provides an antisense oligonucleotide or  
analog thereof comprising 10 or more contiguous bases  
or base analogs from the sequence of bases of sequence  
A, B, C, D, E, F, G, H, I, J, K, L, or M of Figure 1.  
This invention also provides the above-described  
10 antisense oligonucleotides, wherein the nucleotide  
sequence comprises nucleotide sequence A, A', B, C, C',  
D, E, E', F, G, G', H, H', I, I', J, K, K', L, L', M,  
or M' of Figures 2A and 2B. This invention also  
provides the above-described antisense  
15 oligonucleotides, wherein the oligonucleotide is  
encapsulated in a liposome or nanoparticle. This  
invention also provides the above-described antisense  
oligonucleotides, wherein the phosphate backbone  
comprises phosphorothioate bonds. In addition, this  
20 invention provides a method of treating cancer,  
comprising introducing into a tumor cell an effective  
amount of the the above-described antisense  
oligonucleotide, thereby reducing the levels of bcl-xL  
protein produced and treating cancer. This invention  
also provides the above-described methods, wherein the  
25 introducing comprises using porphyrin or lipofectin as  
a delivery agent. This invention also provides the  
above-described pharmaceutical compositions, wherein  
the oligonucleotide is encapsulated in a liposome or  
nanoparticle. This invention further provides the  
30 above-described pharmaceutical compositions, wherein  
the pharmaceutical composition comprises tetra meso-(4-  
methylpyridyl)porphine or tetra meso-  
(anilinium)porphine or a combination thereof.